An-Najah National University
Faculty of Engineering and IT

جامعة النجاح الوطنية
كلية الهندسة وتكنولوجيا المعلومات

Computer Engineering Department

Course Name: Microprocessor Lab Number: 10636392

Lab Report Grading Sheet

Instructor: Manar Qamhieh	Experiment #: 1
Academic Year: 2022	Experiment Name: Binary Input/Output
Semester: second	

Students	
1-Sarah Hinno	2-Arzaq Ziad
3-	4-
Performed on:	Submitted on:

Report's Outcomes

ILO __ =( ) %	ILO __ =( ) %	ILO __ =( ) %	ILO __ =( ) %	ILO __ =( ) %

Evaluation Criterion	Grade	Points
Abstract answers of the questions: "What did you do? How did you do it? What did you find?"	0.5	
Introduction and Theory Sufficient, clear and complete statement of objectives. In addition to Presents sufficiently the theoretical basis.	1.5	
Apparatus/ Procedure Apparatus sufficiently described to enable another experimenter to identify the equipment needed to conduct the experiment.Procedure sufficiently described.	2	
Experimental Results and Discussion (In-Lab Worksheet) Crisp explanation of experimental results. Comparison of theoretical predictions to experimental results, including discussion of accuracy and error analysis in some cases.	4	
Conclusions and Recommendations Conclusions summarize the major findings from the experimental results with adequate specificity. Recommendations appropriate in light of conclusions. Correct grammar.	1	
Appearance Title page is complete, page numbers applied, content is well organized, correct spelling, fonts are consistent, good visual appeal.	1	
Total	10	

* Abstract:

1- We have reviewed the properties 8086/88 microprocessor.

2- we will program a simple function Binary(input /output) to be familiar with 8086 assembly programming.

* Introduction and Theory:

in this experiment we will write code to implement basic function that read the input from (K1-K8)switches , then the output will appear in (L1-L8) LEDs , we used 8255A that have three ports (port A ,port B ,port C).

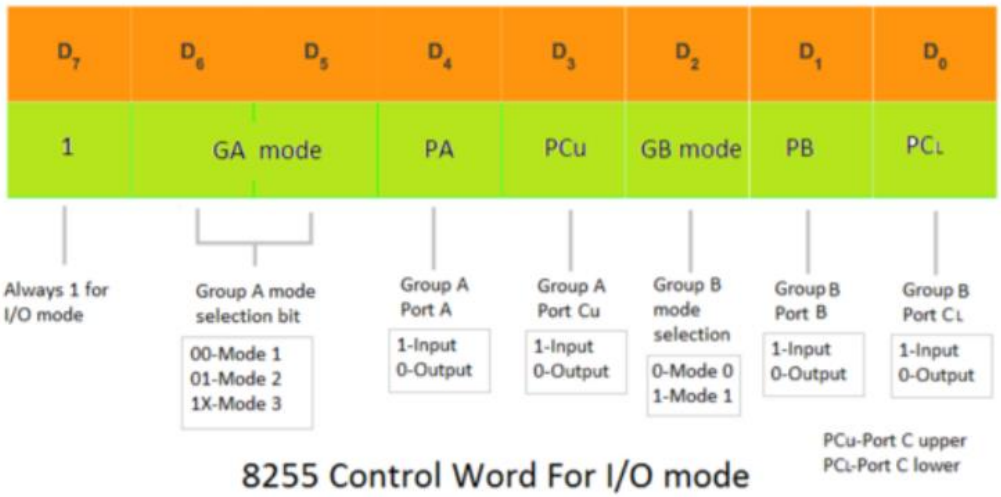
* Procedure:

1- we write assembly code that take digital value by using switches then the result appear by using LEDs.

2- As we said 8255 have three ports ,in this experiment ,the eight input line(switches) is port B ,the eight output line (LEDs)is port A , port C (input or output) because it not used .

3- We need to configure the 8255 Control word register By using this method below (port B input ,Port A output ,port C don't care) .

8255A Control Word Format:



8255 Control Word For I/O mode

*our assembly code :

```
CODE SEGMENT
ASSUME CS:CODE
ORG 100H

; CODE INITIALIZATIONS ARE WRITTEN HERE
START:

;configration
MOV AL , 82h
MOV DX , 0FF2Bh
OUT DX , AL


LOOP1:
MOV DX , 0FF29h
IN AL , DX ;read input from port B
MOV DX , 0FF28h
OUT DX , AL ; write output on port A

JMP LOOP1

END START
CODE ENDS
```

*Conclusions:

In this experiment we learned how to configure the 8255 controller , and we be familiar with Kit by implement simple code and run it .